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EXAMINER

SIMMONS WILLIS, TRACEY A

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1619

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/579,649
Filing Date: May 18, 2006
Appellant(s): DAOU ET AL.

Ronald Koatz
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed November 18, 2009 appealing from the Office action mailed July 7, 2009.

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(1) Real Party in Interest

A statement identifying Conopco, Inc. d/b/a UNILEVER the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The amendment after final rejection filed on October 29, 2009 has been entered.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

The examiner relies upon the following prior art in the rejection of the claims:

1. European Patent Application Publication EP0956850 (Kruger)
2. U.S. Patent 5,482,703 (Pings)
3. U.S. Patent 6,613,316 (Sun et al)

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-2, 4-10, and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application Publication EP0956850 (Kruger) in view of U.S. Patent 5,482,703 (Pings) and U.S. Patent 6,613,316 (Sun et al).

Kruger teaches a hair conditioning formulation [pg 3, par 13, line 44] comprising a cellulose ether and a quaternary ammonium compound [pg 1, par 3, lines 14-15]. The quaternary ammonium compounds include cetyl trimethylammonium chloride *claims 4 and 6* and dipalmitoylethyldimonium chloride *claims 5 and 7* and can be used as a mixture in the formulation [pg 1, par 7, lines 50-52]. Amounts of the quaternary ammonium compound range from 0.15 to 5 wt%, with a preferred range of 0.2 to 2 wt% [pg 1, par 7, lines 54 and 56]. Other components included in the formulation of one embodiment taught m by Kruger are 2.5 wt% cetyl alcohol (fatty material) [pg 3, par 13, line 54] *claims 1 and 2*, and 89.95 wt% water [pg 4, par 13, line 2] and oil components [pg 3, par 7, line 1]. *claim 1* The hair formulations are applied to the hair as rinses and creams [pg 3, par 10].

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While Kruger mentions sodium chloride in the cellulose ether in an amount less than or equal to 4 wt% [pg 3, par 12, line 37], Kruger does not teach potassium chloride as the alkali metal salt. Kruger also does not teach the method of use of the formulation, specific oils, or the ratios of quaternary ammonium compounds when used as a mixture.

Pings teaches hair conditioning compositions [col 1, lines 8-10] comprising water, a silicone conditioning agent (silicone oils [col 3, line 20]) *claims 9 and 10*, a cationic surfactant (cetyl trimethyl ammonium chloride [col 6, line 5]) and fatty alcohols [col 2, lines 23 and 32-34]. Pings further teaches salts used such as potassium chloride in range of 0.001 to 1 wt% [col 7, lines 10-12]. *claim 1*

Sun teaches aqueous opaque conditioners using two different conditioning agents at ratios that optimize their benefit [col 2, lines 59-60 and 67]. The ratio of monoalkyl quat to dialkyl quat ranges from about 15:1 to 2:1 or from about 10:1 to 2:1 [col 3, lines 38 and 40]. *claims 1 and 8*

The ranges for the quaternary ammonium compounds as taught by Kruger overlap with those recited in the claims for the alkyl trimethylammonium salt, and the preferred range falls within that cited for the dialkylethyl dimethylammonium salt. The range for the amount of alkali metal salt as taught by Pings overlaps with the recited range. The amount of the fatty alcohol and water taught by Kruger falls within the recited ranges.

One of ordinary skill in the art at the time of the invention would have been motivated to optimize the amounts of the components in the composition for the desired thickness (viscosity), opaqueness (resulting from the quaternary ammonium compounds and fatty alcohol) [Sun, col 3, line 6] *claim 13*, and conditioning benefits on the hair.

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One of ordinary skill in the art at the time of the invention would have been motivated to add silicone oils to the formulation of Kruger for added conditioning benefit to the hair. One of ordinary skill in the art at the time of the invention would have also been motivated to add an alkali metal halide and further optimize the amount of alkali metal halide in the composition of Kruger to modify the rheology of the formulation as suggested by Pings [col 7, lines 9-10]. Pings also teaches use of the composition by applying to hair, rinsing [col 7, lines 64 and 67], and drying [col 11, line 6]. *claim 12* One of ordinary skill in the art at the time of the invention would have found it *prima facie* obvious to use the steps taught by Pings for the formulation of Kruger in order to use the formulation to condition the hair, particularly if the formulation is not a leave-in conditioner. One of ordinary skill in the art at the time of the invention would have been motivated to optimize the ratios of quaternary ammonium compounds based on the desired softness, shine, and combability of the hair.

(10) Response to Argument

The teachings of the combination of references are relied upon above.

Appellant alleges 1) Sun does not appear to disclose dialkoyl quats or exemplify a combination of monoalkyl quats and dialkoyl quats and no motivation is provided to specifically select the recited dialkoylethyl quat and no benefit in terms of lightening (opacification) is suggested (pg 12), 2) Pings does not disclose dialkoyldimethyl quats (pg 12), 3) the use of potassium chloride as a rheology modifier is irrelevant as the specific combination of quats and their benefit for opacifying is not taught (pg 12), and 4) Kruger does not suggest a necessary

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combination of the quats or their opacifying properties, and a broad disclosure of the quats does not suggest a combination (pgs 12-13).

With regard to Sun and Pings, appellant's arguments cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Kruger teaches the combination of dialkyl and dialkoyl quats, Pings teaches the ratio of quat conditioning compounds in an opaque conditioner, and Sun teaches inclusion of potassium chloride in the composition, albeit for a different purpose, but also teaches the fatty alcohols added in the composition are used as opacifiers. The combination of references is suggested as the products disclosed in the prior art are hair conditioning compositions that use quaternary ammonium compounds. It is further noted that the independent claim does not recite opacifying properties associated with the composition.

With regard to Kruger, the disclosure reads "Either a single quat or a mixture of the aforementioned quats can be used" [pg 2, par 7, line 50] and "A typical example of a suitable alkylquat is cetyl trimethylammonium chloride...and of a diesterquat is dipalmitoylethyldimonium chloride" [pg 2, par 7, lines 51-52]. The motivation to combine the quats is clearly suggested by Kruger and does not need to be exemplified. Again, the opacification properties of the instant invention are not recited in the independent claim.

Finally appellant argues on page 14 of the appeal brief that there are no other opacifiers present which distinction is highlighted by claim 13. This argument should not be found persuasive because the actual language of claim 13 does not exclude the composition taught by the art. Claim 13 recites that composition is free of opacifiers that are other than components b,

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c, d and e. The rejection and arguments as set forth above do not include additional opacifiers other than the components b, c, d, and e of claim 1.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/TRACEY SIMMONS WILLIS/

Examiner, Art Unit 1619

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